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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,600	02/10/2000	Yousuke Kouno	105398	4106

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EXAMINER

CHANG, AUDREY Y

ART UNIT PAPER NUMBER

2872

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/501,600

Applicant(s)

KOUNO, YOUSUKE

Examiner

Audrey Y. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,7,8,10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,7,8,10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

1. The request filed on November 14, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/501,600 is acceptable and a CPA has been established. An action on the CPA follows.
2. This Office Action is also in response to applicant's amendment filed on February 14, 2002, which has been entered as paper number 13.
3. By this amendment, the applicant has amended 2, 7 and 10, has canceled claims 5, 6, 9 and 11 and has newly added claims 12-19.
4. Claims 2-3, 7-8, 10 and 12-19 remain pending in this application.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3, 7-8, 10, 12 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Tsuyuki et al (PN. 6,069,651) in view of the patent issued to Tada et al (PN. 6,078,442).

Tsuyuki et al teaches an *imaging apparatus for endoscopes* wherein the imaging apparatus comprises a charge couple device (CCD) (16) serves as the *photoelectric converter* that converts an object image formed on the receiving surface of the CCD to an electrical signal. The object image is projected from the endoscope (1, Figure 6), via a lens barrel or an imaging optical system (58 or 6) to the CCD. Tsuyuki et al teaches that a filter unit (59 and 61 or 10) is interposed between the CCD and the lens barrel

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or the imaging optical system wherein the filter unit are held within a housing or filter frame (65 or 117), which serves as the *holding member*, with a stage formed at a portion of an external circumference of the optical filter unit for holding the filter unit, (please see Figures 6-7, 11-12, 13A, 19, 26 and 27, columns 8-9, 10, 12, 16, and 22).

Tsuyuki et al also teaches that the filter unit (59 and 61) comprises a plurality of filter layers including a plurality of layers of quartz filter and *infrared cut filter*, (please see column 8). Tsuyuki et al further teaches that the filter layers in the filter unit (59, 61 or 10) may be laminated along the direction along the optical axis, (please see Figures 6 and 7).

The reference has met all the limitations of the claims with the exception that it does not teach explicitly that the plurality of filter layers having a first and a second filter layers, laminated to each other with a *stage* formed by varying the size of the surface of the first filter layer with respect to the size of the surface of the second filter layer along the direction perpendicular to the optical axis. *Tada et al* in the same field of endeavor teaches a filter design having a plurality of filter layers (12-14, Figure 7) laminated together wherein the surfaces of the adjacent filter layers are varying in the direction perpendicular to the optical axis of the filter so that a stage or stepped surfaces with the surface of one filter layer being smaller than the surface of the adjacent filter layer, (please see Figure 7). This design gives rise to an external circumference that include at least one of the surfaces of the filter layers. It would then have been obvious to one skilled in the art to apply the teachings of Tada et al to modify the filter design of Tsuyuki et al for the benefit of providing a filter design with no focus shift and for the benefit of providing a filter design having the implicit advantage of allowing easy retainment of the filter design within a housing or frame.

With regard to claims 12 and 15, Tsuyuki et al teaches that one of the filters is an infrared cut-off filter (61). However this reference does not teach explicitly that the other filter layer is a quarter wave plate. But since the specification fails to teach the criticality of having this particular plate would

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overcome any problem in the prior art such modification would have been considered as obvious matters of design choice for a quarter wave plate is a well known element in the art for changing polarization state of a polarized light. Such plate therefore can be included in the filter design as desired.

With regard to claim 14, Tsuyuki et al teaches that the filters are held in the filter housing, but the cited references do not teach explicitly that the filter holding housing or member has a spring property. However using spring means or any other means, such as thread, for holding an optical filter in place are really art-recognized equivalent to one skilled in the art, such modification therefore is considered as obvious matters of design choice.

With regard to the features concerning the strength of the materials used for the different filter layers, the cited references teaches the filter layers may contain quartz but do not disclose further concern the relative strength. However it would have been obvious to one skilled in the art to modify such since it has been held it is within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended used as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Response to Arguments

7. Applicant's arguments filed on February 14, 2002 have been fully considered but they are not persuasive. The newly amended claims and newly added claims have been fully considered and they are rejected for the reasons stated above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1637. The fax phone numbers for the organization where

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this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Audrey Y. Chang
Primary Examiner
Art Unit 2872

A. Chang, Ph.D.
August 8, 2002

A handwritten signature in black ink, appearing to be 'Audrey Y. Chang', written over the printed name and title.